

**County of Loudoun**  
**Office of Transportation Services**  
**MEMORANDUM**

**RECEIVED**

APR - 2 2010

LOUDOUN COUNTY  
DEPARTMENT OF PLANNING

**DATE:** April 2, 2010

**TO:** Marchant Schneider, Project Manager  
Department of Planning

**FROM:** Lou Mosurak, AICP, Senior Coordinator *lm*

**SUBJECT:** **SPEX 2007-0021—Route 50 (HCA) Medical Campus  
Second Referral**

---

**Background**

This referral reviews the revised special exception (SPEX) application for the proposed Stone Spring Medical Center. The referral also updates the status of the transportation issues identified in the first Office of Transportation Services (OTS) referral on the initial applications (dated September 13, 2007).

The revised SPEX application proposes to construct a 337,000 sq ft (164-bed) general hospital plus associated outpatient medical care facilities on an approximately 24-acre site located in the northwest quadrant of the intersection of Gum Spring Road (Route 659) and John Mosby Highway (U.S. Route 50). A vicinity map is provided as *Attachment 1*. The site is a portion of the area (part of Landbay 2) that was rezoned by the Board of Supervisors to the PD-OP (Planned Development—Office Park) zoning district as part of the Glascock Field rezoning (ZMAP 2006-0007) in December 2007<sup>1</sup>. Major differences between the revised application and the initial submittal include (1) an increase of 56 hospital beds (from 108 to 164); (2) expansion of the hospital building from 247,000 sq ft to 337,000 sq ft; (3) identification of areas for future hospital expansion and structured parking on the site; and (4) reorientation of the hospital campus to the west towards future Stone Springs Boulevard Extended. According to the Applicant's submitted materials, the total special exception uses on the site (i.e., hospital plus outpatient medical care facilities) will not exceed 461,967 sq ft, and total development on the site will not exceed 606,914 sq ft. The outpatient medical care facilities will be located within the hospital building itself or as part of office buildings approved for the site under ZMAP 2006-0007.

Primary access to the site is proposed at two locations: (1) via a full-movement intersection on Stone Springs Boulevard Extended on the west side of the site, and (2) via a full-movement intersection at the intersection of future Road "A" and Road "B" (along a realigned Gum Spring Road) on the east side of the site. Two additional secondary access points are

---

<sup>1</sup> In December 2007, SPEX 2007-0037 was also approved, allowing a heliport to be located on the subject property. The heliport use is depicted on the SPEX plat on the northern portion of the site.

also proposed along Road “B”. Stone Springs Boulevard Extended (four-lane divided section), Road “A” (four-lane section), Road “B” (four-lane section), and a third westbound lane on Route 50 across the frontage of the site have all been proffered to be constructed as part of the larger Glascock Field development, with Stone Springs Boulevard Extended, Road “B” and the third westbound lane on Route 50 to be open to traffic prior to occupancy of any uses on the subject SPEX site<sup>2</sup>. The Glascock Field proffers also state that the Applicant will not object to the modification (by VDOT or others) of the northern half of the existing Gum Spring Road (Road “B”)/Route 50 intersection to a right-in/right-out only configuration once certain other road connections and improvements are in place, as well as the eventual complete closure of this intersection at such time as, among other improvements, an interchange is in place proximate to this location<sup>3</sup>.

This review is based on materials received by OTS from the Department of Planning on January 25, 2010, including (1) a revised statement of justification, prepared by the Applicant’s representative, revised January 8, 2010; (2) a letter responding to first referral comments, prepared by the Applicant’s representative, dated January 8, 2010; (3) a trip generation comparison memorandum (“Traffic and Trip Generation Assessment”) prepared by Gorove/Slade Associates, Inc., dated January 8, 2010; and (4) a special exception plat (plan set) prepared by Urban, Ltd., dated March 2007 and revised through January 8, 2010. OTS staff also reviewed the approved proffers and concept plan for the Glascock Field rezoning (ZMAP 2006-0007).

On March 26, 2010, OTS received from the Department of Planning an additional update to the Applicant’s “Traffic and Trip Generation Assessment,” dated March 25, 2010. This latest version of the document is identical to the Applicant’s January 2010 analysis but adds specific analysis of the additional SPEX uses (up to 125,000 sq ft above and beyond the 337,000-sq ft hospital) proposed on the site. This document is provided as *Attachment 2*; the comments below incorporate OTS’ review and analysis of this latest version of the document.

### **Review of Applicant’s Traffic and Trip Generation Assessment**

With the revised SPEX application materials, the Applicant provided a revised “Traffic and Trip Generation Assessment,” dated January 8, 2010. This revised document updated the previous version of the Applicant’s traffic assessment (dated May 25, 2007) to reflect the approved Glascock Field development parameters as well as the changes to the proposed hospital use (i.e., increase in amount of square footage and number of beds). As noted in the first OTS referral, given the full traffic impact analysis (traffic study) that was prepared for the larger Glascock Field rezoning, only a trip generation comparison (comparing the relative differences in the number of trips generated by now by-right PD-OP uses with the number of trips generated by the proposed special exception uses) was required for acceptance of this special exception application in 2007, provided that the special exception uses produced fewer trips.

---

<sup>2</sup> Per Proffer IV.A.2 and Proffer IV.C.1 of the approved Glascock Field proffer statement, as revised through December 3, 2007.

<sup>3</sup> Per Proffer IV.L. of the approved Glascock Field proffer statement, as revised through December 3, 2007.

As in the 2007 version of the Applicant's traffic assessment, both the January and March 2010 versions compared the trip generation for the proposed (now 337,000 sq ft) hospital based on the number of beds (now 164) with an equivalent amount of approved general office uses (now 337,000 sq ft) and notes that the hospital generates fewer daily, AM and PM peak hour trips (see *Attachment 2*, Table 3). The 2010 versions of the traffic assessment also note that the proposed 164-bed hospital would generate approximately the same amount of daily trips as 282,000 sq ft of approved general office uses, but fewer trips in both the AM and PM peak hours (see *Attachment 2*, Table 4).

The March 2010 update to the traffic assessment adds specific analysis regarding the additional 125,000 sq ft of SPEX uses that are proposed for the site. The traffic assessment notes that this square footage may be either an expanded hospital facility, or part of the approved medical office uses on the site (there is no separate ITE Code for outpatient medical care uses). In the case of the former, this square footage would result in fewer daily, AM and PM peak hour trips (see *Attachment 2*, Table 5A). In the case of the latter, this square footage would result in no additional vehicle trips (see *Attachment 2*, Table 5B).

The 2010 versions of the Applicant's traffic assessment also discuss the future roadway network in the area, and state that the ultimate planned condition of Route 50 is a six-lane divided limited access facility, with grade-separated interchanges at locations including relocated Gum Spring Road (Stone Springs Boulevard Extended).

### **Status of Transportation Comments**

Staff comments from the first OTS referral (September 13, 2007), as well as the Applicant's responses (quoted directly from its January 8, 2010 response letter) and issue status, are provided below. It is noted that the initial staff comments from the first OTS referral were written in September 2007, prior to the December 2007 approval of the Glascock Field rezoning.

1. **Initial Staff Comment (September 13, 2007):** As noted above, the Applicant needs to provide a revised traffic analysis that reflects the amount and type of overall development proposed on the site and that accurately compares trip generation between future by-right uses and proposed SPEX uses. OTS staff notes that a trip generation comparison was only accepted for this project if trips from the SPEX uses were less than the trips from PD-OP by-right uses. A meeting with the Applicant needs to be held to discuss the components of the revised traffic analysis, including the issue of "general office" versus "medical office" uses. The revised analysis should also include justification as to the Applicant's choice of "beds" as opposed to "square footage" for determining hospital trip generation rates. The revised analysis may need to be expanded to include information on peak hours and projected levels of service on the road network surrounding the medical campus as volumes and peak hours may be different from those analyzed (general office) in the traffic study for the larger Glascock Field rezoning. As the Glascock Field rezoning is still pending, any change in that application should be reflected in the revised traffic analysis for this special exception.

Applicant's Response (January 8, 2010): Proffers IV.G. and IV. H. associated with ZMAP 2006-0007 addressed the different trip characteristics and impacts of medical office versus general office. The hospital proposed in this application generates fewer trips than an equivalent-sized office or medical office use. Attachment 1 is a memorandum prepared by Gorove/Slade Associates, dated January 8, 2010, that presents a trip generation comparison between the proposed hospital and approved office use. The comparison evaluates the worst-case scenario by comparing trips generated by the hospital with the trips generated by the general office (general office generates less trips than a similar sized medical office). The comparison reveals that the hospital will generate 62 percent fewer AM peak hour trips and 53 percent fewer PM peak hour trips as compared to the approved general office.

**Issue Status:** OTS acknowledges that the medical versus general office issue was addressed by the Glascock Field rezoning (ZMAP 2006-0007) through the contribution of an additional \$0.60/sq ft regional road contribution for space initially occupied by medical office uses.

The Applicant's latest (March 25, 2010) traffic assessment contains the complete trip generation comparison information that was initially requested in the first OTS referral in 2007. The total amount of proposed SPEX uses would generate no more trips than those that would be generated by the approved uses on the site. Issue resolved.

2. Initial Staff Comment (September 13, 2007): The Applicant should clarify the amount and type of proposed SPEX uses within the limits of the special exception area. For example, the plat indicates that the maximum amount of proposed SPEX uses would be no greater than 247,000 sq ft., but this amount does not correspond with other amounts in the Applicant's materials, which indicate that the hospital would consist of approximately 200,000 sq ft. and the outpatient medical care uses would be up to 55,500 sq ft. Proposed development amounts contained in the traffic analysis, in the statement of justification, and on the SPEX plat should all be consistent with one another.

Applicant's Response (January 8, 2010): The Plat has been revised to state that up to 461,967 square feet of special exception uses are planned as well an additional nearly 145,000 sq feet of by-right uses for a total of up to 606,914 square feet of development in the subject Property, all of which is consistent with ZMAP 2006-0007. The traffic memo submitted with this package analyzes the impact of replacing 337,000 square feet of office with the proposed hospital; it does not re-analyze the entire development because, as stated in Comment 1 above, ZMAP 2006-0007 accounted for trips associated with the full development.

**Issue Status:** OTS did not request a "re-analysis" of the entire development, just clarification as to what uses were being proposed under this SPEX application. The complete trip generation comparison provided in the Applicant's March 25, 2010 "Traffic and Trip Generation Assessment" addresses this issue. Issue resolved.

3. Initial Staff Comment (September 13, 2007): The need for additional turn lanes at any of the four entrances into the site should be evaluated as part of the larger Glascock Field rezoning and provided, if necessary, as part of the rezoning's proposed road improvements. These additional improvements may be needed given the potential for significantly higher trip generation rates than were previously anticipated as by-right medical office uses were not accounted for in either traffic analysis (ZMAP or SPEX). Regarding traffic signals, a condition of approval should be included requiring the installation of signals by the Applicant at any of the site entrances if warranted.

Applicant's Response (January 8, 2010): Turn lanes are provided and are shown on the SPEX Plat at each of the four entrances to the Property. With respect to traffic signals, Proffer IV.F. commits the Applicant to install a signal at the intersection of Road A and Road B if warranted. Further, the Applicant agreed to a regional road contribution in accordance with Proffer IV.G.2. of ZMAP 2006-0007 that calls for a contribution of \$0.60 per square foot for non-residential uses and an additional \$0.60 (total \$1.20 contribution) per square foot for medical office uses, money that could be used for any number of transportation improvements proximate to the site.

**Issue Status:** The SPEX plat depicts turn lanes at each of the four entrances to the site, including separate left turn lanes at three of the four entrance locations. These lane configurations appear to be consistent with the assumptions made in the Glascock Field traffic study prepared by Wells & Associates, dated May 24, 2007.

With regard to traffic signalization, there is no proffer from ZMAP 2006-0007 committing the Applicant to design and install a traffic signal at the main entrance to the site from Stone Springs Boulevard Extended. The above-referenced May 24, 2007 traffic study indicates failing side street LOS (i.e., traffic exiting the hospital) at this location (Intersection 12 in the traffic study) in both 2015 and 2020. The traffic study states that while a traffic signal at this location would restore LOS to acceptable levels, the intersection "would not likely meet warrants for signalization." Further clarification is necessary as to the analysis performed at this intersection.

OTS acknowledges the proffered regional road contribution for non-residential uses and additional regional road contribution for medical office uses located on the site (per ZMAP 2006-0007), and that these contributions could be used for any number of road improvements in the area.

4. Initial Staff Comment (September 13, 2007): The Applicant should include within the SPEX plat a pedestrian circulation plan for the entire 24-acre site. This plan should depict sidewalks internal to the parking areas and between proposed buildings as well as sidewalks/multi-use trails along Stone Springs Boulevard Extended and Road "B". Staff does not believe that a multi-use trail along Route 50 is necessary or appropriate given the plan to convert Route 50 to a limited access facility in the future.

Applicant's Response (January 8, 2010): *Comment acknowledged. The SPEX Plat has been revised to depict sidewalks and crosswalks throughout the Property. Further, the Applicant notes that OTS staff had no issue with a multi-use trail along Route 50 as shown on the approved CDP for ZMAP 2006-0007, which is a required element of that approval.*

**Issue Status:** The sidewalks and crosswalks added to the SPEX plat appear to provide adequate pedestrian access to the entire site.

Generally speaking, the focus of bicycle/pedestrian facilities in corridors planned to become limited access has been on the parallel road network (in this case along Dulles South Boulevard and Tall Cedars Parkway) and not on the future limited access roadway itself. Notwithstanding this approach, the referenced multi-use trail is a proffered requirement of the underlying Glascock Field rezoning, and OTS therefore considers this issue to be resolved with respect to the current SPEX application.

5. Initial Staff Comment (September 13, 2007): The Applicant should coordinate with OTS staff regarding the locations and other specifics of future bus stops on site; staff is available to meet regarding this topic. OTS staff recommends that bus stops be located proximate to the entrances of both the proposed hospital and medical office buildings on site in order to provide bus riders with safe and convenient access to the medical facilities. A condition of approval should be included requiring the Applicant to install a concrete pad, bus shelter/canopy, lighting, and related signage at each bus stop prior to occupancy of any of the proposed uses, and requiring the Applicant to maintain these bus stop facilities in perpetuity.

Applicant's Response (January 8, 2010): *The Applicant will include a development condition that requires the installation of a bus stop upon initiation of intra-County bus service to the site on a frequent basis.*

**Issue Status:** The language referenced by the Applicant has not been provided to OTS, and it is noted that the County, not the Applicant, imposes SPEX conditions. In this case, OTS recommends a condition of approval that commits the Applicant to reserve/depict on the SPEX plat the locations of two (2) bus shelters proximate to the entrances of the hospital and medical office buildings on site, but not install the shelters until such time as local bus service to the site is planned and funded. Once installed, the Applicant should be responsible for maintenance of the shelters in a clean, functional condition. OTS notes that a similar SPEX condition was included with the approval of the INOVA Dulles South Hospital Campus (SPEX 2006-0012). As noted in the first referral, OTS staff is available to meet with the Applicant regarding this topic.

6. Initial Staff Comment (September 13, 2007): Staff notes that any of the regional transportation and transit cash contributions for non-residential uses proposed as part of the Glascock Field rezoning application would also apply to the proposed hospital and outpatient medical care SPEX uses.



Applicant's Response (January 8, 2010):    *Comment Acknowledged.*

**Issue Status:**    As noted by the Applicant in several of the comments above, this SPEX application is subject to the proffered commitments of the approved Glascock Field rezoning (ZMAP 2006-0007). Issue resolved.

7. Initial Staff Comment (September 13, 2007):    The proposal to reconfigure the Gum Spring Road (Road "B")/Route 50 intersection to maintain right-in/right-out movements (by removing the existing signal and median crossover) is not consistent with the Revised CTP, which calls for the ultimate condition of this segment of Route 50 to be a limited access facility with grade separated interchanges at various locations, including the West Spine Road (approximately 1,000 feet to the east of the proposed right-in/right-out movement). The proposed right-in/right-out configuration is not only inconsistent with the limited access policy but would also result in weave/merge conflicts with the future Route 50/West Spine Road interchange. It is also inconsistent with policies contained in the Arcola Area/Route 50 CPAM approved in 2006. Staff recommends that the intersection be closed in its entirety, with alternate access provided via Road "B" north to Road "A" and Stone Springs Boulevard Extended. However, given that the location of the existing intersection is part of an existing public roadway, final authority on the reconfiguration or closure of the intersection rests with VDOT. Further discussion and coordination on this matter with VDOT is necessary.

Applicant's Response (January 8, 2010):    *The Applicant discussed and addressed this issue during the processing of ZMAP 2006-0007. Proffer IV.L. associated with ZMAP 2006-0007 acknowledges that the Gum Spring Road/Route 50 intersection may be closed in the future.*

**Issue Status:**    OTS acknowledges that this issue was addressed with the Glascock Field rezoning (Proffer IV. L.), whereby the Applicant committed that it would not object to the modification (by VDOT or others) of the northern half of the existing Gum Spring Road (Road "B")/Route 50 intersection to a right-in/right-out only configuration once certain other road connections and improvements are in place, namely (1) Stone Springs Boulevard between Route 50 and the Route 50 North Collector Road is accepted by VDOT for maintenance; (2) a four-lane divided section of the West Spine Road between Route 50 and Tall Cedars Parkway is open to traffic; (3) a traffic signal is operational at the intersection of Route 50 and the West Spine Road; and (4) the portion of existing Gum Spring Road between the Route 50 North Collector Road and Road B has been vacated and/or abandoned by VDOT and/or the County. The Glascock Field proffers (Proffer IV.L.) also acknowledge the eventual complete closure of this intersection (by VDOT or others) at such time as an interchange is in place proximate to this location and the West Spine Road (Route 606 Extended/Arcola Boulevard) is open north of Route 50. This issue is resolved with respect to the current SPEX application. Further issues related to the planned road network in this area are discussed in Comments #8 and #9 below.

### **New Issues**

Since completion of the first referral dated September 13, 2007, OTS staff notes the following additional comments/issues:

8. The Applicant's 2010 traffic assessments (see *Attachment 2*, Future Roadway Network, Page 3) indicate that a grade-separated interchange will be constructed at Route 50 and relocated Gum Spring Road (Stone Springs Boulevard Extended). While OTS acknowledges that right-of-way (ROW) reservation for a future grade-separated interchange at this location was proffered as part of the Glascock Field rezoning<sup>4</sup>, neither the 2001 Revised CTP nor the Route 50/Arcola CPAM reference/depict such a facility at this location (the CTP depicts interchanges on Route 50 at the West Spine Road (approximately 2,400 feet to the east) and at Route 659 Relocated (Northstar Boulevard) (approximately 3,200 feet to the west); the Route 50/Arcola CPAM does not reference any specific interchange locations). It is not clear how this interchange would function given the close proximity of the planned interchanges to the east and west (typically, it is recommended that there is at least one mile between interchanges). Although the conversion of this segment of Route 50 to a limited access facility is not anticipated for some time, should the Applicant desire to preserve access to the hospital campus from Route 50 at Stone Springs Boulevard in the future, the Applicant should provide a study that evaluates (1) the functionality and feasibility of an interchange at Stone Springs Boulevard Extended within the context of the planned interchanges to both the east (West Spine Road) and west (Northstar Boulevard), and (2) traffic circulation in the area both with and without an interchange at this location. OTS notes that the current draft of the 2010 CTP contains a note (Note "L") indicating that the functionality of planned interchanges in this area will be determined by later study. Given the access needs of the hospital, OTS believes that this is an appropriate request which will assist the County and VDOT in determining the ultimate road network in this area.
9. Since the first OTS referral on this application was written in September 2007 and the Glascock Field rezoning was approved in December 2007, there has been much discussion regarding how the "interim" road network in this vicinity (i.e., Route 50, West Spine Road, Existing Gum Spring Road, Stone Springs Boulevard, etc) will function until such time as the West Spine Road (Route 606 Extended/Arcola Boulevard) north of Route 50 (proffered by Arcola Center (ZMAP 2006-0015) but not anticipated to be completed until sometime after 2014) is constructed and open to traffic. OTS notes that it is desirable that traffic pattern and access changes (i.e., the opening of the West Spine Road in both directions south of Route 50, the modification of the Route 50/Existing Gum Spring Road intersection to a right-in/right out configuration and closure of the median crossover, and the opening of Stone Springs Boulevard Extended) during this "interim" period are coordinated and occur as close as possible in time to each other so as to minimize the disruption to the traveling public in the area.

---

<sup>4</sup> Per Proffer IV.A.1. of the approved Glascock Field proffer statement, as revised through December 3, 2007.



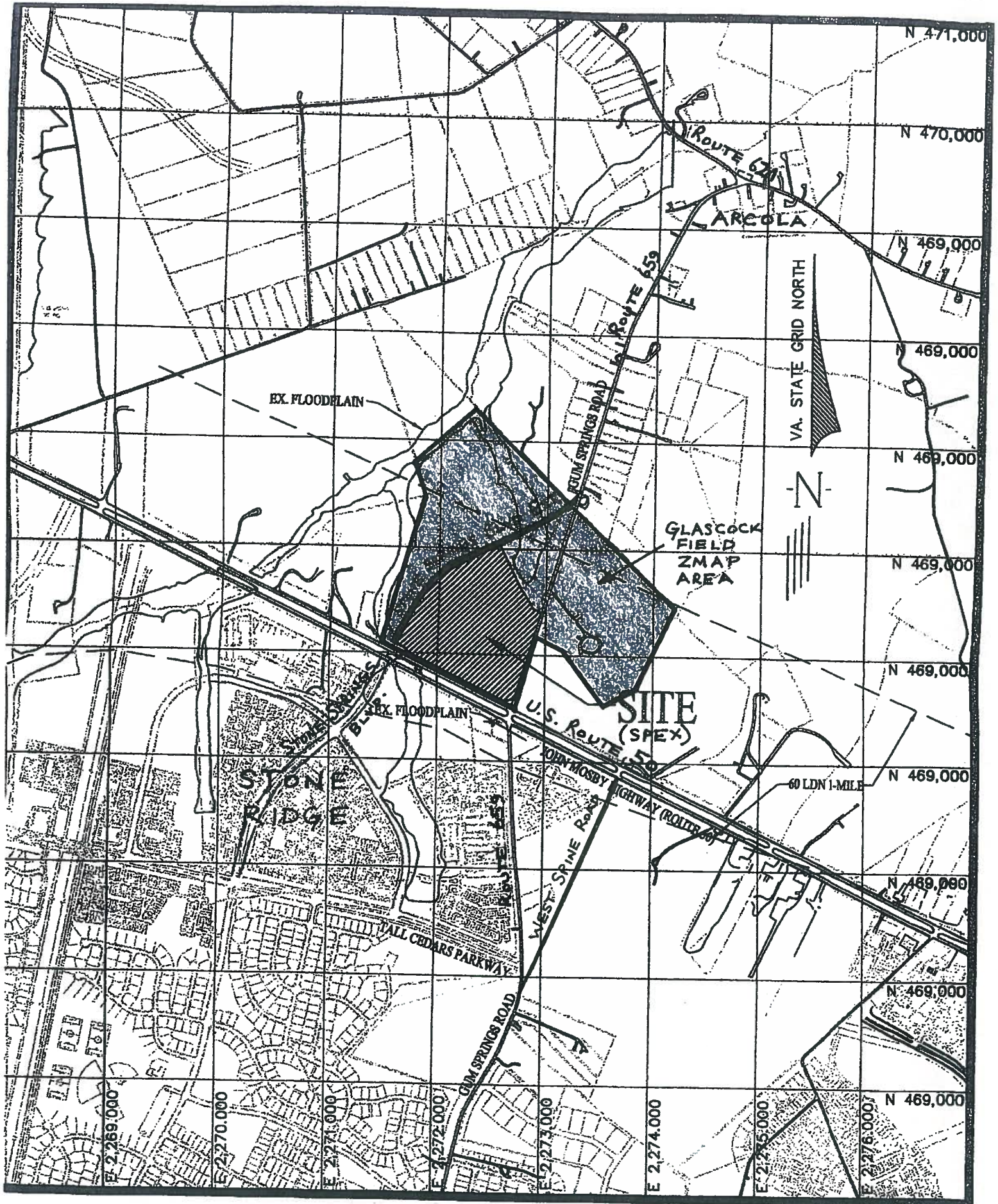
### **Conclusion**

**OTS will offer a recommendation once it has reviewed the Applicant's responses to these comments. OTS staff is available to meet with the Applicant to further discuss the transportation issues identified in this referral.**

### **ATTACHMENTS**

1. Site Vicinity Map
2. Applicant's Revised Traffic and Trip Generation Assessment (March 25, 2010)

cc: Charles Yudd, Assistant County Administrator, County Administration  
Terrie Laycock, Director, OTS  
Andrew Beacher, Assistant Director, OTS  
Nancy Gourley, Transit Division Chief, OTS  
Stephen Gardner, Planner, Department of Planning



ATTACHMENT 1



**GOROVE/SLADE ASSOCIATES, INC.**

3914 Centreville Road/ Suite 330 / Chantilly, VA 20151

Phone: 703-787-9595  
Fax: 703-787-9905

## MEMORANDUM

**TO:** Lou Mosurak  
Marchant Schneider  
**CC:** Tracey White  
Mark Looney  
Molly Novotny  
**FROM:** Christopher Tacinelli  
Tushar Awar  
**DATE:** March 25, 2010

Loudoun County OTS  
Loudoun County  
HCA Capital Division  
Cooley Godward Kronish LLP  
Cooley Godward Kronish LLP



**SUBJECT:** StoneSpring Medical Center – Traffic and Trip Generation Assessment

## INTRODUCTION

The purpose of this memorandum is to summarize a trip generation comparison between the approved and proposed conditions for the proposed StoneSpring Medical Center. The subject site is approximately 24 acres located along the north side of Route 50, west of the existing Gum Spring Road, and east of the future Stone Springs Boulevard (relocated Gum Spring Road), in Loudoun County, Virginia. The application is a Special Exception for hospital and medical care facility, outpatient uses. This use will generate less traffic than an equivalent sized by-right office use contemplated in ZMAP 2006-0007, which established the underlying PD-OP zoning on the Property. The project is anticipated to be complete with full build-out of the development between 2015 and 2020. A regional map showing the location of the site is shown in Figure 1.

At a transportation scoping meeting held in 2007, it was decided that a full traffic study for the special exception would not be necessary if the proposed development plan would generate fewer trips than the development plan proposed with ZMAP 2006-0007, since a traffic study was performed for that rezoning application. Because the proposed special exception development will generate fewer vehicle trips, the results from the original rezoning application represent a worst-case traffic scenario and, therefore, the improvements required by that application will ensure that the roadway network will continue to operate at acceptable levels with the revised development plan. A copy of the agreed upon scope of the study is attached.

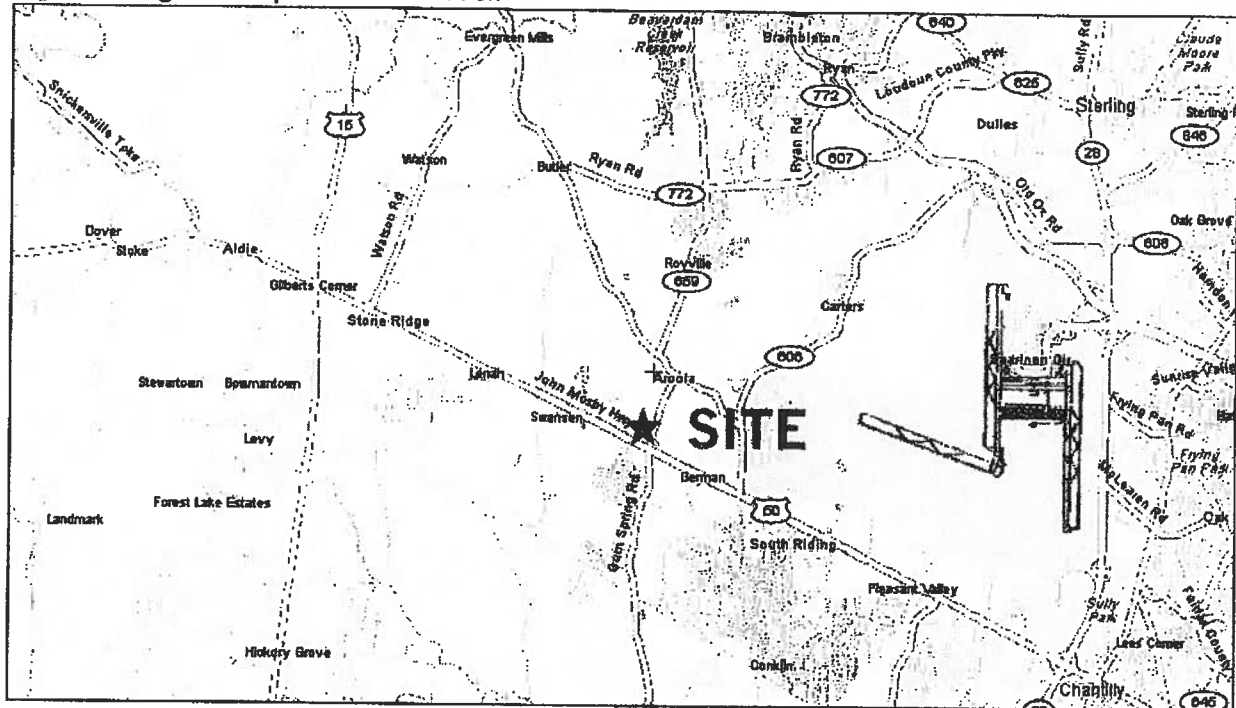
## EXISTING CONDITIONS

### *Existing Roadway Network*

Route 50 (John Mosby Highway) is an east-west highway that runs through Northern Virginia. It is generally a four to six lane median-divided minor arterial with variable design speed. In the vicinity of the proposed site, the road is four lanes with wide medians and turning lanes at intersections. The current posted speed limit on this road is 55 mph.

Route 659 (Gum Spring Road) is generally a two lane undivided local access road with variable design speed. In the vicinity of the site, the road is two lanes with 8 to 10-foot travel lanes. The current posted speed limit on this road is 35 mph north of Route 50.

**Figure 1: Regional Map and Site Location**



### *Hazardous Locations*

A field inspection was conducted of the roadways and intersections in the vicinity of the site. No hazardous conditions were discovered as a result of the field inspection.



## CURRENT PLAN

Rezoning application ZMAP 2006-0007 (Glascock Field at Stone Ridge) rezoned the property to PD-OP to allow development of up to 733,036 square feet of general office use. The hospital proposed with this application is approximately 337,000 square feet in its initial phase. Therefore, this memo and the trip generation calculations presented in the subsequent sections analyze the difference in trips between the proposed hospital and an equivalent square footage of approved office development for the site. Table 1 below summarizes the total number of trips that could be generated by the approved office development of 337,000 square feet. All trip generation calculations contained in this memorandum were based on the Institute of Transportation Engineers' (ITE) Trip Generation, 8<sup>th</sup> Edition.

**Table 1: Site Trip Generation for Approved Land Use**

Land Use	ITE Code	Size	Units	Week day						
				AM Peak Hour			PM Peak Hour			Daily
				In	Out	Total	In	Out	Total	Total
APPROVED										
General Office Building	710	337	kSF	437	59	496	78	379	457	3,400

## PROPOSED DEVELOPMENT CONDITIONS

### *Future Roadway Network*

According to the Loudoun County Countywide Transportation Plan and the Route 50/Arcola CPAM, Route 50 will ultimately be a six-lane limited access median-divided rural arterial, with consideration for bicycle accommodation. Grade-separated interchanges will be constructed at Route 50 and relocated Gum Spring Road as well as at neighboring Route 50 and Route 606.

According to ZMAP 2006-0007, the intersection of Route 50 and Gum Spring Road will become a right-in/right-out access once Stone Springs Boulevard (Gum Spring Road Relocated) is constructed. At that time, existing Gum Spring Road north of proposed Road B may be abandoned. If this happens, the existing southern portion of Route 659 will be rerouted as Road B and "T" into Stone Springs Boulevard.

Access to the site will be provided along Route 50 at the existing Gum Spring Road and the proposed Stone Springs Boulevard (relocated Gum Spring Road). The Gum Spring Road access may be removed once Route 50 becomes limited access.

### ***Proposed Land Use***

The current proposed development plan for the StoneSpring Medical Center is to construct a 164-bed hospital. Table 2 below summarizes the total number of trips that could be generated by the hospital.

**Table 2: Site Trip Generation for Proposed Land Use**

Land Use	ITE Code	Size	Units	Week day						
				AM Peak Hour			PM Peak Hour			Daily
				In	Out	Total	In	Out	Total	Total
SPECIAL EXCEPTION*										
Hospital	610	164	Beds	133	54	187	78	137	215	2,951

### **APPROVED VS. PROPOSED DEVELOPMENT CONDITIONS**

Table 3 represents the difference between the current approved development plan and the proposed StoneSpring Medical Center in Loudoun County, Virginia.

**Table 3: Approved Condition vs. Proposed Condition**

Land Use	ITE Code	Size	Units	Week day						
				AM Peak Hour			PM Peak Hour			Daily Total
				In	Out	Total	In	Out	Total	
APPROVED										
General Office Building	710	337	kSF	437	59	496	78	379	457	3,400
PROPOSED BY SPECIAL EXCEPTION										
Hospital	610	164	Beds	133	54	187	78	137	215	2,951
Difference in Trips (Special Exception Minus Approved)				-304	-5	-309	0	-242	-242	-449
% Difference				-70%	-8%	-62%	0%	-64%	-53%	-13%

As indicated in Table 3, the proposed development plan for the StoneSpring Medical Center will generate less traffic as compared to the currently approved land use. The proposed plan will generate approximately 62% fewer trips than the currently approved land use during the AM peak hour, 53% fewer trips during the PM peak hour, and 13% fewer trips throughout the day.



**Table 4: Equivalent Office Development – Compared to the Proposed Medical Center**

Land Use	ITE Code	Size	Units	Week day						
				AM Peak Hour			PM Peak Hour			Daily Total
				In	Out	Total	In	Out	Total	
APPROVED										
General Office Building	710	282	kSF	379	51	430	68	327	395	2,964
PROPOSED BY SPECIAL EXCEPTION										
Hospital	610	164	Beds	133	54	187	78	137	215	2,951
Difference in Trips (Special Exception Minus Approved)				-246	3	-243	10	-190	-180	-13
% Difference				-56%	5%	-49%	13%	-50%	-39%	0%

As indicated in Table 4, the proposed development plan for the StoneSpring Medical Center will generate daily trips equivalent to 282,000 square feet of office development, however on the whole generate significantly less peak hour trips. The proposed plan will generate approximately 49% fewer trips than 282,000 square feet of office during the AM peak hour, 39% fewer trips during the PM peak hour, but an equivalent amount of trips throughout a typical weekday.

#### **ADDITIONAL SPEX USES (125,000 SF)**

In addition to the 164-bed hospital use, up to an additional 125,000 square feet of special exception uses are planned for the property. These uses will either be an expanded hospital or medical care facility, outpatient only uses, which would be located within the hospital itself or in an adjacent by-right medical office building. Notably, the ITE manual does not provide specific trip generation rates for Medical Care facilities, outpatient. Accordingly, such uses would be part of or in lieu of the approved office development, which as shown in this memo is more traffic intensive. Therefore, no additional traffic impacts are expected from such additional uses and square footage (125,000 SF), as the trips already are accounted for as part of or will be deducted from the approved Office/Medical Office Building square footage.

A comparison of the trips generated by the approved and proposed use under both the scenarios is presented in Tables 5A and 5B on the next page.

**Table 5A: Trip Generation Comparison**

Land Use	ITE Code	Size	Units	Week day						
				AM Peak Hour			PM Peak Hour			Daily Total
				In	Out	Total	In	Out	Total	
APPROVED										
Medical Office Building	720	125	kSF	228	60	288	93	251	344	4,897
PROPOSED SPECIAL EXCEPTION										
Hospital	610	125	kSF	143	98	241	120	165	285	3,459
Difference in Trips (Special Exception Minus Approved)				-85	38	-47	27	-86	-59	-1,438
% Difference				-37%	65%	-16%	29%	-34%	-17%	-29%

**Table 5B: Trip Generation Comparison – Worst Case Scenario**

Land Use	ITE Code	Size	Units	Week day						
				AM Peak Hour			PM Peak Hour			Daily Total
				In	Out	Total	In	Out	Total	
APPROVED										
Medical Office Building	720	125	kSF	228	60	288	93	251	344	4,897
PROPOSED SPECIAL EXCEPTION										
Medical Office Building	720	125	kSF	228	60	288	93	251	344	4,897
Difference in Trips (Special Exception Minus Approved)				0	0	0	0	0	0	0
% Difference				0%	0%	0%	0%	0%	0%	0%

As indicated in Tables 5A and 5B, the 125,000 of additional SPEX uses will generate no additional trips than the approved Medical Office facility.

## CONCLUSION

This memorandum presents the findings of a traffic impact brief for the proposed StoneSpring Medical Center in Loudoun County, Virginia. The analysis presented in this memorandum supports the following major conclusions:

- The proposed development plan will generate fewer trips than the approved development plan, thereby having less of an impact on the surrounding roadway network.
  - The proposed hospital will generate approximately **62% fewer trips** during the AM Peak Hour.
  - The proposed hospital will generate approximately **53% fewer trips** during the PM Peak Hour.
  - The proposed hospital will generate approximately **13% fewer trips** throughout a typical weekday.
- The trips generated daily by the proposed hospital are equivalent to those generated by approximately 282,000 square feet of office use, which is less than what is already approved for the site.
- The proposed 125,000 square feet of special exception uses, which will either be an expanded hospital or medical care facility, outpatient only uses would be part of or in lieu of the approved office development. Therefore, no additional traffic impacts are expected from such additional uses and square footage (125,000 SF), as the trips already are accounted for as part of or will be deducted from the approved Office/Medical Office Building square footage.
- Access to and from the site will be via two entrances: Route 50 at the proposed Stone Springs Boulevard (relocated Gum Spring Road) and existing Gum Spring Road. The (existing) Gum Spring Road entrance may be removed in the future when Route 50 becomes a limited access highway.

# SCOPING DOCUMENT



GOROV &amp; ASSOCIATES, INC.

3914 Centerville Road / Suite 330 / Chantilly, VA 20151

Phone: 703-787-8896  
Fax: 703-787-9902

## MEMORANDUM

TO: George Phillips                      Loudoun County

CC: Art Smith                              Loudoun County

     Alex Faghri                            VDOT

     John Massey                           CESP, Inc.

     Mark Looney                          Cooley Godward Kronish, LLP

FROM: Cheryl Sharp

     Chris Tacinelli

DATE: May 9, 2007

SUBJECT: Route 50 Medical Campus - Traffic and Trip Generation Assessment Scope

This memorandum outlines the scope for a Traffic and Trip Generation Assessment for the proposed Route 50 Medical Campus. This document is prepared in place of Loudoun County's standard scoping form to document our agreement on the scope of the requested assessment. The application is a Special Exception for a hospital use, and is contingent on the rezoning application ZMAP 2006-0007 (Glascock Field at Stone Ridge) which requests that the parcel be rezoned to PD-OP. It is understood that this Special Exception application cannot be approved prior to the rezoning application.

**Site Location:** The subject site is located along the north side of Route 50, west of the existing Gum Spring Road, and east of the future Stone Springs Boulevard (relocated Gum Spring Road), in Loudoun County, Virginia. An area map is included in Figure 1 below.

**Site Description:** The site being considered for the Special Exception consists of approximately 24 acres currently being rezoned to PD-OP. The application is for a Special Exception in the PD-OP zoning to permit a hospital, an associated helistop, and outpatient medical care facilities. The project is scheduled to be complete with full build-out of the development anticipated between 2015 and 2020.

**Trip Generation:** In order to calculate the trip generation for the proposed land uses, the Institute of Transportation Engineers (ITE) Trip Generation, 7<sup>th</sup> Edition publication will be used to determine the trips into and out of the project site. The proposed development will generate approximately 123 trips during the weekday morning peak hour, approximately 141 trips during the weekday afternoon peak hour, and approximately 1,278 trips throughout an entire week day. This is less than a comparably sized office building, resulting in a 44 to 62% lower trip generation, as shown in Table 1 below.

HOA Development - Traffic Memorandum Scope  
 May 0, 2007  
 Page 2

Figure 1: Area Map and Site Location

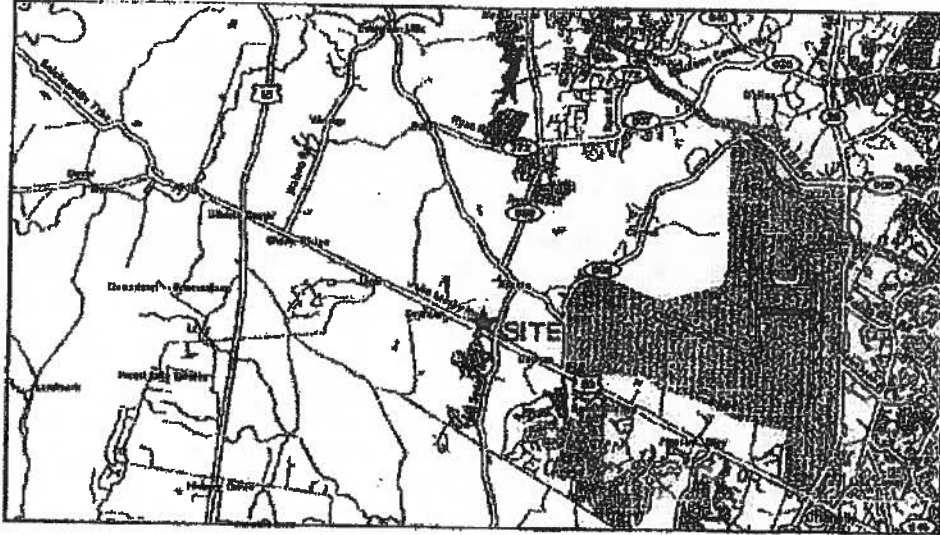


Table 1: Trip Generation Comparison

Land Use	ITE Code	Size	Units	Week day						Daily Total
				AM Peak Hour			PM Peak Hour			
				In	Out	Total	In	Out	Total	
REZONING (GENERAL OFFICE)										
General Office Building	710	484	kSF	585	78	661	102	497	599	4,350
SPECIAL EXCEPTION AFTER REZONING (HOSPITAL)										
Hospital	819	108	Beds	87	36	123	81	90	141	1,278
Difference in Trips (Special Exception Minus Rezoning)				-478	-40	-518	-81	-407	-489	-4,874
% Difference				-81%	-51%	-81%	-60%	-82%	-78%	-71%



HCA Development - Traffic Memorandum Scope  
May 9, 2007  
Page 3

**Site Access:** Access to the proposed development will be provided via Route 50 at the existing Gum Spring Road and the proposed Stone Springs Boulevard (relocated Gum Spring Road). The detailed assessment will assume that Route 50 will become a limited access highway in the future.

**Traffic Counts:** As stated previously, the traffic generated by the hospital will be less than the amount of traffic generated by the allowed office use. As was discussed at the scoping meeting, a memorandum summarizing/describing the trips generated by the proposed site, site access, and any particular notable items in the transportation network will address all of the County's Office of Transportation Service's issues for this Special Exception application in lieu of a full traffic study. Traffic counts will not be performed, but field observations of existing conditions will be documented for roads adjacent the site for roadway lane configurations, traffic controls, speed limits, general roadway design characteristics, and surrounding land uses.

*Safety issues*

*MRP*

**Recommendations:** We will not be providing any additional recommendations through this memorandum. As the proposed hospital will be generating fewer trips than the office use allowed in the proposed PD-OP zone, the traffic study currently being performed for ZMAP 2006-0007, showing the recommendations with the office trips, would be a more intense scenario. This Special Exception application is subject to ZMAP 2006-0007 and all its proffers.

Please review the traffic assessment scope described above for the proposed development and sign for agreement and approval to continue with the study.

Loudoun County's Representative Signature/ Date:

*[Signature]* 5/11/07

Traffic Consultant's Representative Signature/ Date:

*[Signature]* 5/08/07

VDOT's Representative Signature/ Date:

\_\_\_\_\_